

Lycodon aulicus capucinus a colubrid snake introduced to Christmas Island, Indian Ocean

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Christmas Island lies in the north-eastern Indian Ocean in latitude 10°25'S, longitude 105°43'E, about 320 km south of Java. Until 31 December 1987 it was mined for phosphate. Cogger *et al.* (1983) record 10 species of reptile from the island, of which five are endemic, viz. *Cyrtodactylus* sp., *Lepidodactylus listeri*, *Cryptoblepharus egeriae*, *Emoia nativitatis* and 'Ramphotyphlops' *exo-coeti*.

On 3 November 1987 the Western Australian Museum received a preserved snake from Mr D.J. Phillips, Government Conservator, Australian National Parks and Wildlife Service on Christmas Island. Since then another specimen has been forwarded and, according to Mr Phillips (in litt. 26.11.87), another has been seen. Both specimens are Wolf or House snakes (*Lycodon aulicus*) a species which ranges from India south and east to Timor and the Philippines (M.A. Smith 1943). They belong to the South-East Asian race *L. a. capucinus*.

Details of specimens (measurements in mm): WAM 96843 (female) SVL 605; tail 115; ventrals 194; anal divided; subcaudals 61, divided; midbody scale rows 17; stomach empty. WAM 97796 (damaged) SVL 355; tail 63; midbody scale rows 17. The first specimen is purplish-brown on the back with odd white-edged scales; lower flanks and lips whitish; three rows of nuchal scales white-edged. The other has more white-edge scales, aligned to form narrow zigzag bands. Both have moderately well developed ventrolateral keels.

Cogger *et al.* (1983) did not collect this species during their work on the island in 1979. Neither did Dr J.N. Dunlop who spent 18 months there working for the Australian National Park and Wildlife Service, including an extensive reptile trapping programme. This and the fact that all three records are from the port area suggest the introduction occurred between April 1987 when Dunlop left and October 1987 when the first specimen was collected.

The 'East Crystal' is the regular supply ship for the island. It calls from Singapore every two to three weeks, and in the past has back-loaded phosphate to Indonesia and Malaysia (recently mostly the latter). The only other vessels to call in 1987 were two Australian Navy ships the 'Derwent' and the 'Swan' (June-July) and a private vessel in September (J.N. Dunlop pers. comm.).

Lycodon aulicus lays 3-11 eggs, possibly breeds twice a year, is arboreal and lives on geckos, skinks and small mammals (M.A. Smith 1943). With these attributes it could pose a threat to the island's small vertebrate fauna, especially the

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five species of endemic reptile (*loc. cit.*) and the Christmas Island Shrew (*Crocidura attenuata trichura*). It is impossible to predict what might happen should it become established. At worst it could be as catastrophic as the introduction to Guam of the Cat Snake (*Boiga irregularis*) which apparently was a major factor in the virtual extinction of most of Guam's native birds (Fritz and Scott 1986).

The remainder of the Western Australian Museum's Christmas Island reptile collection comprises *Cyrtodactylus* sp. (19 specimens), *Hemidactylus frenatus* (7), *Lepidodactylus listeri* (1), *Cryptoblepharus egeriae* (3), *Emoia nativitatis* (16), *Emoia atrocostata* (1) and '*Ramphotyphlops*' *exocoeti* (1).

References

- Cogger, H.G., Sadler, R. and Cameron, E. (1983). *The Terrestrial Reptiles of Australia's Island Territories*. The Australian National Park and Wildlife Service. Special Publication No. 11. ANPWS, Canberra.
- Fritz, T.H. and Scott, N.J. Jnr (1986). Snake Systematics Newsletter No. 4, June 1986.
- Smith, M.A. (1943). *The Fauna of British India*. Vol. III. Serpentes. Taylor and Francis, London.

